$$(R^{2})_{x} \xrightarrow{(R^{2})_{m}} (CH_{2}^{-}C)_{q} \xrightarrow{(CH_{2}^{-}C)_{q}} (CR^{2})_{m} \xrightarrow{(CH_{2}^{-}C)_{q}} (CH_{2}^{-}C)_{q} \xrightarrow{(CH_$$

wherein R is a hydroxyl group of a OR<sup>3</sup> group, R<sup>1</sup> is hydrogen or methyl, R<sup>2</sup> is a straight, branched or cyclic alkyl group of 1 to 8 carbon atoms, R<sup>3</sup> and R<sup>4</sup> each are an acid labile group, R<sup>5</sup> is methyl or ethyl, Z is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms, x is 0 or a positive integer, y is a positive integer, satisfying  $x+y \le 5$ , m is 0 or a positive integer, n is a positive integer, and s each are 0 or a positive number, satisfying  $x+y \le 5$ , p, q, r and s each are 0 or a positive number, satisfying  $x+y \le 5$ , m is 0 or a positive number, satisfying  $x+y \le 5$ , p, q, r and s each are 0 or a positive number, satisfying  $x+y \le 5$ , m is 0 or a positive number, satisfying

wherein  $R^6$ ,  $R^7$  and  $R^8$  each are hydrogen or methyl,  $R^9$  is methyl or ethyl, E is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms,  $R^{10}$  is a straight, branched or cyclic alkyl group of 1 to 20 carbon atoms, which may contain an oxygen or sulfur atom,  $R^{11}$  is a tertiary alkyl group of to 20 carbon atoms, E is 0 or a positive integer of up to 5, t and E we each are a positive number, E u and E is a straight, branched or cyclic alkyl group of 1 to 20 carbon atoms, E is 0 or a positive integer of up to 5, t and E are a positive number, E u and E is a straight, branched or cyclic alkyl group of 1 to 20 carbon atoms, E is a straight, E is a straight,

## Add the following new claims:

5. The composition of claim 1, wherein in formula (1), the acid labile groups R<sup>3</sup> and R<sup>4</sup> are independently selected from the group consisting of:

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ائے ا branched or cyclic, tertiary alkyl groups with 4 to 20 carbon atoms; trialkylsilyl groups whose alkyl groups each have 1 to 6 carbon atoms; oxoalkyl groups of 4 to 20 carbon atoms; and, groups of the following formulae (3) and (4):

W2

$$\begin{array}{c|c}
 & R^{12} \\
 - C \\$$

wherein,

 $R^{12}$  and  $R^{13}$  are independently hydrogen or straight, branched or cyclic alkyl groups of 1 to 18 carbon atoms,

R<sup>14</sup> is a monovalent hydrocarbon group of 1 to 18 carbon atoms, which may have a hetero atom and in which some hydrogen atoms are replaced by hydroxyl, alkoxy, oxo, amino or alkylamino groups,

alternatively, a pair of  $R^{12}$  and  $R^{13}$ , a pair of  $R^{12}$  and  $R^{14}$ , or a pair of  $R^{13}$  and  $R^{14}$ , taken together, may form a ring, in which the pair is a straight or branched alkylene group of 1 to 18 carbon atoms.

 $R^{15}$  and  $R^{16}$  independently have the same definition as  $R^{12}$  and  $R^{13}$ , and

R<sup>17</sup> is a straight, branched or cyclic alkyl group of 4 to 40 carbon atoms, a trialkylsilyl group whose alkyl groups each have 1 to 6 carbon atoms, or oxoalkyl group of 4 to 20 carbon atoms.

al

6. The composition of claim 1, wherein in the polymer of formula (1) p, q and r are positive numbers and p, q, r and s satisfy:

$$0 < (q+r)/(p+q+r+s) \le 0.8$$
, and

$$0.01 \le s/(p+q+r+s) \le 0.1$$
.

7. The composition of claim 1, wherein in the polymer of formula (2) t, u, v and w satisfy the ranges:

$$0 < \underline{w}/(t+u+v+w) \le 0.5$$
;

$$0 \le v/(t+u+v+w) \le 0.2$$
; and

$$0 \le u/(t+u+v+w) \le 0.05$$
.

8. The composition of claim 1, wherein the polymers of formulae (1) and (2) each have a weight average molecular weight of 3,000 to 30,000.

9. A chemical amplification type resist composition comprising a polymeric mixture of a polymer comprising recurring units of the general formula (1) and having a weight average molecular weight of 1,000 to 500,000 and a polymer comprising recurring units of the general formula (2) and having a weight average molecular weight of 1,000 to 500,000.

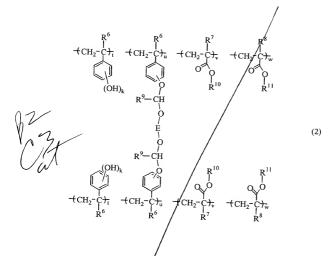
$$(R^{2})_{x} \xrightarrow{f} (CH_{2} \xrightarrow{C})_{\overline{p}} + CH_{2} \xrightarrow{C})_{\overline{q}} + CH_{2} \xrightarrow{C})_{\overline{r}} + CH_{2} \xrightarrow{C})_{\overline{s}}$$

$$(R^{2})_{x} \xrightarrow{f} (R^{2})_{m} \xrightarrow{f} (CR^{3})_{n} + CH_{2} \xrightarrow{C})_{\overline{r}} + CH_{2} \xrightarrow{C})_{\overline{s}}$$

$$(R^{3})_{x} \xrightarrow{f} (R^{3})_{n} \xrightarrow{f} (CR^{4})_{n} \xrightarrow{f} (CR^{4})_{n} \xrightarrow{f} (CR^{4})_{n} \xrightarrow{f} (CH_{2} \xrightarrow{C})_{\overline{p}} + CH_{2} \xrightarrow{C})_{\overline{q}} + CH_{2} \xrightarrow{C})_{\overline{r}} + CH_{2} \xrightarrow{C})_{\overline{r}}$$

$$(R^{3})_{x} \xrightarrow{f} (CR^{3})_{n} \xrightarrow{f} (CR^{4})_{n} \xrightarrow{f} (CR^{4})_{n$$

wherein R is a hydroxyl group or a  $OR^3$  group,  $R^1$  is hydrogen or methyl,  $R^2$  is a straight, branched or cyclic alkyl group of 1 to 8 carbon atoms,  $R^3$  and  $R^4$  each are an acid labile group,  $R^5$  is methyl or ethyl, Z is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms, x is 0 or a positive integer, y is a positive integer, satisfying  $x+y \le 5$ , m is 0 or a positive integer, n is a positive integer, satisfying  $m+n \le 5$ , p, q, r and s each are 0 or a positive number, satisfying  $m+n \le 1$ , provided that  $m+n \le 1$ , provided that m+n



wherein  $R^6$ ,  $R^7$  and  $R^8$  each are hydrogen or methyl,  $R^9$  is methyl or ethyl, E is a straight, branched or cyclic alkylene g oup of 1 to 10 carbon atoms,  $R^{10}$  is a straight, branched or cyclic alkyl group of 1 to 20 carb  $\phi$ n atoms, which may contain an oxygen or sulfur atom,  $R^{11}$  is a tertiary alkyl group selected from a group of the formulae (5) or (6):

$$\begin{array}{c}
H_2C \\
H_2C \\
H_2C \\
CH_2
\end{array}$$

$$\begin{array}{c}
CH_2 \\
CH_2
\end{array}$$
(5)

wherein,  $R_{j}^{jk}$  is a methyl, ethyl, isopropyl, cyclohexyl, cyclopentyl, vinyl, acetyl, phenyl or

cyano group, and b is an integer of 0 to 3, and

Call )

$$H_3C \longrightarrow R^{19} \qquad \qquad (6)$$

wherein, R<sup>19</sup> is an isopropyl, cyclohexyl, cyclopentyl, vinyl, acetyl, phenyl or cyano group, and

k is 0 or a positive integer of up to 5, t and w each are a positive number, u and v each are 0 or a positive number, wither one of u and v is not equal to 0, satisfying t+u+v+w=1.

- 10. A chemical amplification type, positive resist composition comprising
  - (A) an organic solvent,
  - (B) the polymeric mixture of claim 9 as a base resin, and
  - (C) a photoacid generator.
- 11. A chemical amplification type, positive resist composition comprising
  - (A) an organic solvent,
  - (B) the polymeric mixture of claim 9 as a base resin,
  - (C) a photoacid generator, and
  - (D) a dissolution regulator.
- 12. The resist composition of claim 10, further comprising (E) a basic compound.

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13. The composition of claim 9, wherein in formula (1), the acid labile groups  $R^3$  and  $R^4$  are independently selected from the group consisting of:

branched or cyclic, tertiary alkyl groups with 4 to 20 carbon atoms; trialkylsilyl groups whose alkyl groups each have 1 to 6 carbon atoms; oxoalkyl groups of 4 to 20 carbon atoms; and, groups of the following formulae (3) and (4):

Sulf

$$\begin{pmatrix}
R^{13} & O \\
C & A & C \\
R^{16} & O
\end{pmatrix} = R^{17}$$
(4)

wherein,

R<sup>12</sup> and R<sup>13</sup> are independently hydrogen or straight, branched or cyclic alkyl groups of 1 to 18 carbon atoms,

R<sup>14</sup> is a monovalent hydrocarbon group of 1 to 18 carbon atoms, which may have a hetero atom and in which some hydrogen atoms are replaced by hydroxyl, alkoxy, oxo, amino or alkylamino groups,

alternatively, a pair of R<sup>12</sup> and R<sup>13</sup>, a pair of R<sup>12</sup> and R<sup>14</sup>, or a pair of R<sup>13</sup> and R<sup>14</sup>, taken

together, may form a ring, in which the pair is a stranght or branched alkylene group of 1 to 18 carbon atoms.

R<sup>15</sup> and R<sup>16</sup> independently have the same definition as R<sup>12</sup> and R<sup>13</sup>, and

R<sup>17</sup> is a straight, branched or cyclic alkyl group of 4 to 40 carbon atoms, a trialkylsilyl group whose alkyl groups each have 1 to 6 carbon atoms, or oxoalkyl group of 4 to 20 carbon atoms.



14. The composition of claim 9, wherein in the polymer of formula (1) p, q and r are positive numbers and p, q, r and s satisfy:

$$0 < (q+r)/(p+q+r+s) \le 0.8$$
, and

$$0.01 \le s/(p+q+r+s) \le 0.1$$
.

15. The composition of claim 9, wherein in the polymer of formula (2) t, u, v and w satisfy the ranges:

$$0 < w/(t+u+v+w) \le 0.5$$
;

$$0 \le v/(t+u+v+w) \le 0.2$$
; and

$$0 \le u/(t+u+v+w) \le 0.05$$
.

16. The composition of claim 9, wherein the polymers of formulae (1) and (2) each have a weight average molecular weight of 3,000 to 30,000.